



UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

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November 29, 2019

Dr. Datto:

I am enthusiastic to serve as a collaborator and consultant on your grant application for the Rehabilitation Research and Development Service Career Development Award, Department of Veterans Affairs entitled "Cell Therapeutic Conditioned Media, Photobiomodulation, and Rehabilitative Motor Training for Chronic SCI".

My research has focused on central (CNS) and peripheral nervous system (PNS) injury and repair mechanisms and light tissue interactions. I am a recognized pioneer in the development of photonic therapies to non-invasively treat CNS and PNS injuries and accelerate wound healing. My research has played a major role in establishing the validity of the photonic specialty known as Photobiomodulation. This research included characterization of the effects of light on tissues and cells at the molecular and functional levels, determination of depth of penetration of various wavelengths of light when applied to the skin, and optimization of dose. My research established the optimal near-infrared (NIR) wavelengths for depth of penetration to the level of spinal cord and into the brain when light is applied to the skin. Further, we showed that light altered gene expression in many cell types including neurons and glia, and when delivered transcutaneously, improved recovery after spinal cord injury by altering the immune response and the secondary injury cascade.

This project is very important because it proposes a rehabilitative strategy for chronic SCI that will determine the optimal delivery and combination of three therapies: cell therapeutics, photobiomodulation and rehabilitative motor training. The goal is to achieve successful regeneration of supraspinal motor neurons, reduction of chronic pain, and functional recovery.

I am excited about the potential of this grant and collaborating with you. The results of this program will certainly have a major impact on the wellbeing and care for many people suffering from chronic spinal cord injury. I plan to devote 2% effort to this project and no salary compensation is sought.

Sincerely,

Juanita J. Anders, Ph.D.

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